

WHAT IS CLAIMED IS:

1. A finely-divided powder spray apparatus having a spray nozzle pipe for discharging finely-divided powders from the tip together with a gas flow onto a member to be sprayed, which is disposed at a prescribed distance from said member and declined in a prescribed direction; and

a moving-speed control means which controls a moving-speed of the tip of said spray nozzle pipe, based on a density distribution of the finely-divided powders deposited on the surface of said member to be sprayed in a trial spray.

2. A finely-divided powder spray apparatus according to claim 1, wherein said density distribution is represented by a quadratic function which indicates a reduction rate of a density of the deposited finely-divided powders based on a distance between a peak point of the density in said trial spray and a spray point at which an extension from said spray nozzle pipe intersects with said member to be sprayed.

3. A finely-divided powder spray apparatus according to claim 2, wherein said quadratic function is composed of a X-axis quadratic function, which indicates a reduction rate of the density of the deposited finely-divided powders based on the distance between said peak point on the X-axis and said spray point, and a Y-axis quadratic function, which indicates a reduction rate of the density of the deposited finely-divided powders based on the distance between said peak point on the Y-axis and said spray point.

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4. A finely-divided powder spray apparatus according to claim 1, wherein the moving-speed of the tip of said spray nozzle pipe is decreased under control as the reduction rate of the density of said deposited finely-divided powders is increased.

5. A finely-divided powder spray apparatus according to claim 2, wherein the moving-speed of the tip of said spray nozzle pipe is decreased under control as the reduction rate of the density of said deposited finely-divided powders is increased.

6. A finely-divided powder spray apparatus according to claim 3, wherein the moving-speed of the tip of said spray nozzle pipe is decreased under control as the reduction rate of the density of said deposited finely-divided powders is increased.

7. A finely-divided powder spray apparatus according to any one of claims 1-6, wherein said member to be sprayed is a substrate of liquid crystal displays and said finely-divided powders are spacers for liquid crystal displays.

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